

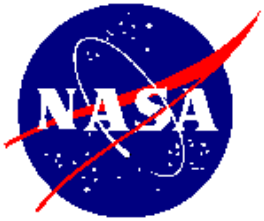
Safety....The NASA Family....Excellence....Integrity

NASA Safety & Mission Assurance Compliance Verification Workshop

September 14, 2004

Presented by: Bryan O'Connor

Chief Safety and Mission Assurance Officer

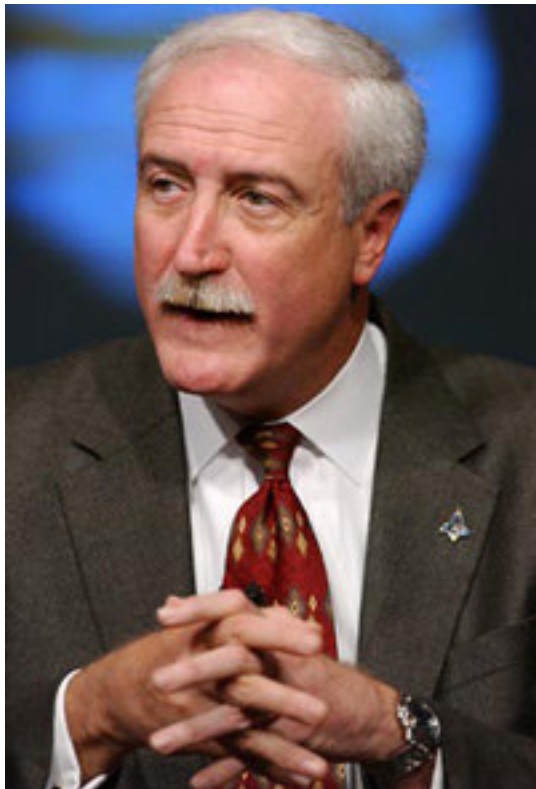


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NASA Safety Culture Transformation

- Administrator Sean O'Keefe discussed the Agency-level values revalidated by our senior leadership. The NASA Values are:

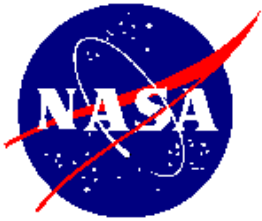
Safety, the NASA Family, Excellence, and Integrity.



Safety

We are committed, individually and as a team, to protecting the safety and health of the public, our partners, our people and those assets that the Nation entrusts to us. Safety is the cornerstone upon which we build mission success.

Image left: NASA Administrator Sean O'Keefe. Photo credit: NASA/Bill Ingalls.



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NASA Safety Culture Background

•Columbia Accident Investigation Board:

R7.5-2 – NASA Headquarters Office of Safety and Mission Assurance should have direct line authority over the entire Space Shuttle Program safety organization and should be independently resourced.

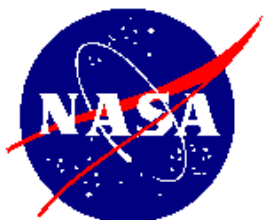
•Diaz Report:

The CAIB also recommended that the NASA Headquarters Office of Safety and Mission Assurance should have a direct line authority over the entire Space Shuttle Program safety organization and should be independently resourced (CAIB R7.5-2). **The Diaz Team concluded that these concepts could be effectively applied to provide independent engineering and safety across all NASA programs.**

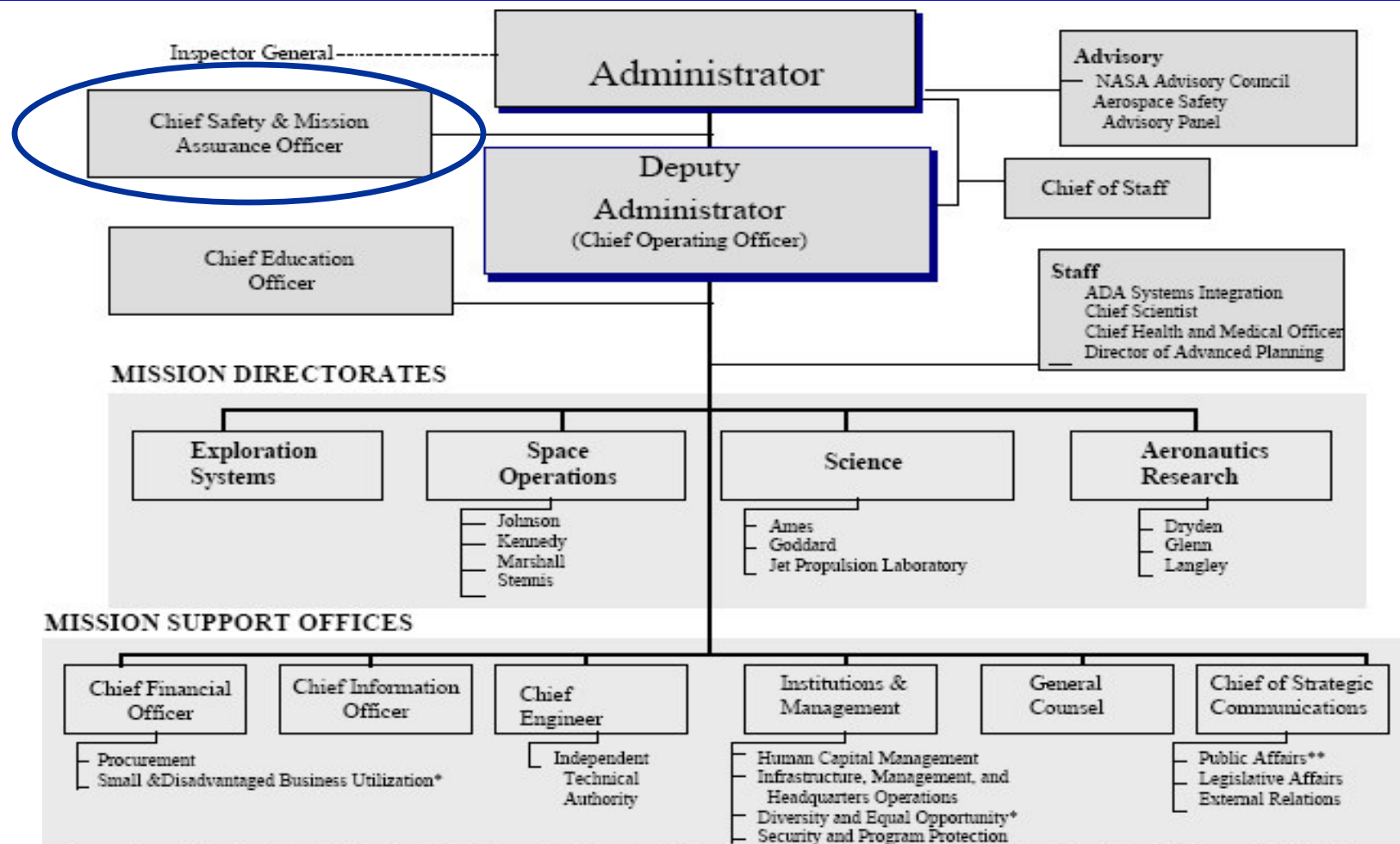
•BST Safety Survey:

While the survey supports our legacy of technical excellence, teamwork and pride, it also identifies important safety and organizational issues that must be addressed before we can initiate positive changes within the agency. Deficiencies in the perception of organizational support, or concern for the needs and interests of employees, as well as **the quality and quantity of upward communication about safety, are two of the areas cited in the survey that need improvement.** - Sean O'Keefe
NASA Administrator.



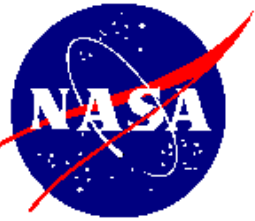


NASA Organization Transformation



* In accordance with law, the Offices of Diversity and Equal Opportunity and Small and Disadvantaged Business Utilization maintain reporting relationships to the Deputy and the Administrator.

** Including a new emphasis on internal communications.



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Transformation – Realigned Safety and Mission Assurance Office

**Chartered in
December 2003**

**Office of Safety and
Mission Assurance**

**Review and
Assessment Division**

**Primary Independent
Corporate Compliance
Verification Responsibility**

**Capturing Best Practices &
Lessons Learned**

Decision Support

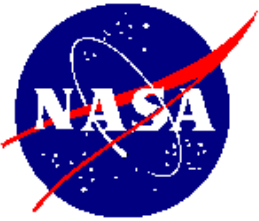
**Knowledge Understanding &
Visibility into Compliance with
Req, Process Capability,
Technical Issues, Minority
Opinions & Residual Risk**

**Safety and Assurance
Requirements Division**

**Provides the corporate
leadership in the definition
and implementation of
NASA's Agency-wide Safety
and Mission Assurance
Policies, Procedures,
Standards, Tools,
Techniques and Training.**

**Mission Support
Division**

**Provides the primary
interface with the customers
of the Office of Safety and
Mission Assurance.**



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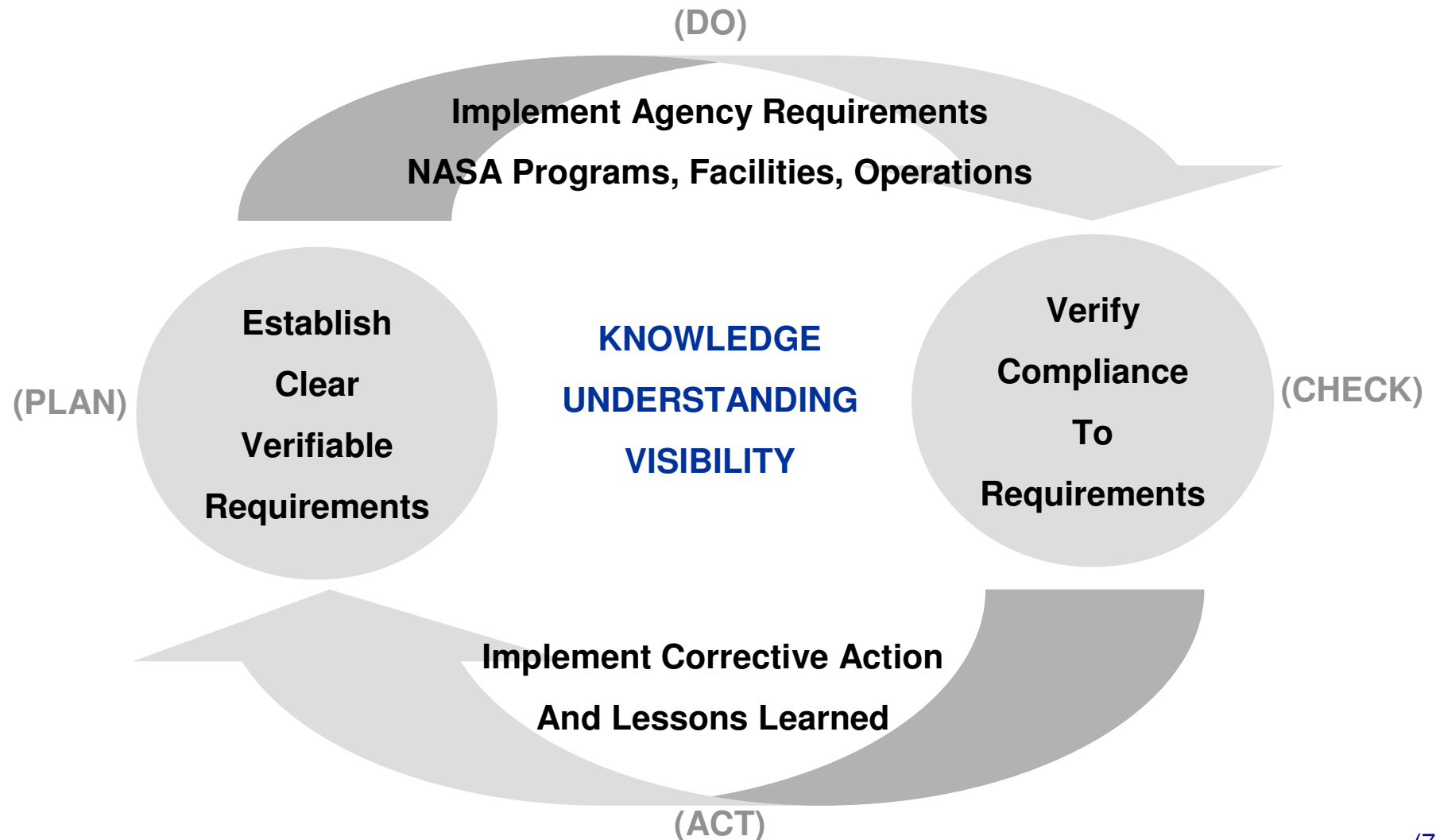
Transformation: Implementation of the Review and Assessment Division

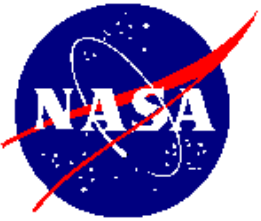
- **Five Elements**
 - **Institutional / Facility / Operations Review and Assessment**
 - **Programmatic Audit and Review**
 - **Operational Readiness Review**
 - **Special Projects and Benchmarking**
 - **Process Based Mission Assurance – Knowledge Management System (PBMA – KMS)**



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Requirements and Verifying Compliance to Agency Safety & Mission Assurance Requirements

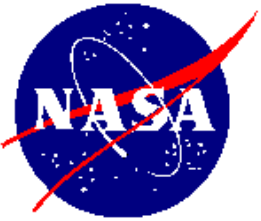




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Requirement/Compliance Cultural Goals:

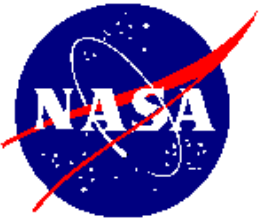
- **NASA / Navy Benchmarking Exchange (NNBE) identified the benefits of adopting a "requirement / compliance" safety culture similar to that implemented in the nuclear submarine Navy. Attributes of that culture include:**
 - **Safety requirements are clearly documented and achievable, with minimal use of waivers or tailoring.**
 - **Requirements are implemented through capable and carefully controlled processes.**
 - **Compliance is verified through rigorous in-line management control and assurance processes.**
 - **Compliance is also verified independently of program management by a separate compliance verification organization.**



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Review and Assessment Division's Compliance Verification Emphasis

- **Review and Assessment Division functions will complement the traditional SMA “white hat” (“support”) function with a structured Compliance Verification capability.**
 - **Agency Safety and Mission Assurance requirements are clearly documented and implemented.**
 - **Compliance Verification Guidance including identification of Objective Quality Evidence needed to verify compliance is provided.**
 - **Reviews and Audits are conducted.**
 - **Audit Reports provide a means of Acquiring and Disseminating Best Practices.**
 - **Audit Reports support Operational Decisions.**



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Compliance Verification Workshop

- **Everyone's active involvement is needed to create a successful Agency Safety and Mission Assurance Compliance Verification Audit Program.**
- **Participants are asked to provide comments, suggestions, and constructive criticism in three areas:**
 - **Compliance Verification Guidance Material,**
 - **Programmatic Audit Process,**
 - **Institutional / Facility / Operational Safety Audit Process.**